

CLAIMS

1. Hair extension applicator (1), of the kind used to lengthen and/or thicken head hairs by applying additional hair extensions to natural hair, comprising a handle (2), at least a fixed jaw member (7) and at least a pressing member (9), the latter apt to receive therebetween a portion of head hair and one or more fixing elements of respective additional hair extensions, and actuation means (11) of said at least a pressing member (9), said at least a pressing member (9) being controlled by said actuation means (11) in a bidirectional translation motion to apply a pressure with respect to said at least a fixed jaw member (7) operating as contrast means to the action of said at least a pressing member (9), characterized in that it comprises a mobile pressing member (9) acting on said fixed jaw member (7), said mobile pressing member (9) being controlled by a pneumatic device (51; 72) of said actuation means, operating at a predetermined pressure, said fixed jaw member (7) being a rest for fixing elements of extensions.
- 15 2. Hair extension applicator (1), of the kind used to lengthen and/or thicken head hairs by applying additional hair extensions to natural hair, comprising: a handle (2) and a pair of jaws (6, 7) fixed and adjacent therebetween, supported on said handle (2), apt to receive therebetween a portion of head hair and one or more fixing elements of respective additional hair extensions, a first jaw (6) of said pair supporting at least a pressing member (9) and actuation means (11) of said at least a pressing member (9), the second jaw (7) acting as fixed jaw member as contrast means to the action of said at least a pressing member (9), characterized in that it comprises a mobile pressing member (9) acting on said second jaw (7), said mobile pressing member (9) being controlled by a pneumatic device (51; 72) of said actuation means, operating at a predetermined pressure and said second jaw being a rest for fixing elements of extensions.
- 20 3. Applicator (1) according to claim 1 or 2, wherein the actuation means (11) comprises an actuation arm (13) which is pivoted on the pressing member (9), to compensate possible differences in thickness of the head hair.
- 25 4. Applicator (1) according to any of the preceding claims, wherein said fixed jaw (7) comprises a resting plane (10).
- 30 5. Applicator (1) according to claim 4, wherein, on both sides, the resting plane (10) is equipped with comb-like means to align the receiving hair.
- 35 6. Applicator (1) according to any of the preceding claims, wherein the mobile pressing member (9) has a pressing plane (70) formed on the end of a stem (71).

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7. Applicator (1) according to any of the preceding claims, having a body acting as handle (2) and receives said actuation means (11, 72).
8. Applicator (1) according to claims 6 and 7, wherein the resting plane (10) and the pressing plane (70) are substantially perpendicular to the body development, the axis of the stem (71) being coincident with the body development axis.
9. Applicator (1) according to claim 1 or 2, wherein the pneumatic device (72) comprises a simple-effect piston (73) containing a plunger (74) and a spring (75) guaranteeing the return, the piston (73) being powered by a central system (4) through a duct (77), the central system (4) being equipped with a system for adjusting said predetermined pressure.
10. Applicator (1) according to any of the preceding claims, wherein the mobile pressing member (7), at its own pressing plane (70), is heated to activate the adhesion of fixing elements.
11. Applicator (1) according to claim 10, wherein in the mobile pressing member (7) a thermistor (19) is received, electrically powered by a central system (4) at a predetermined voltage thereupon the temperature depends.
12. Applicator (1) according to any of the preceding claims, wherein a control unit (4) comprises a timer which, in response to a command button (26), determines the carrying out of a compression – heating – decompression cycle implementing the joining between extensions and head hair.
13. Applicator (1) according to any of the preceding claims, which is assembled in a specific apparatus (130) comprising an extensible and revolving arm (131) thereon a supporting cable (132) is appended, supporting the applicator (1), said supporting cable being connected to a counter-weight system which virtually annuls the applicator (1) weight for the operator.
14. Applicator (10) according to claims 12 and 13, wherein said apparatus (130) comprises a base (133) supporting said control unit (4) and which is assembled on wheels (134).
15. Applicator (1) according to claim 1 or 2, wherein, in opposition to said pressing member (9), the fixed jaw member (7) has a surface plate (10) manufactured with elastically deformable material.
16. Apparatus (1) according to claim 3, wherein the actuation means (11) comprises an electric motor (14) with its own driving shaft (15), said actuation arm (13) being mechanically engaged to said driving shaft (15) to generate a translation

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motion.

17. Applicator (1) according to claim 3, wherein the actuation arm (13) is inserted in a slideway (18) limiting the stroke thereof.

18. Applicator (1) according to claim 1 or 2, wherein the return of the pressing member (9) is guaranteed thanks to elastic members (54) extended between the pressing member (9) and the respective jaw (6).

19. Applicator (1) according to claim 2, wherein said first jaw (6) comprises, on its own inner surface facing the second jaw (7), a recess (8) receiving the pressing member (9).

10 20. Applicator (1) according to any of the claims 1 to 9, having activation means of the fixing elements of the additional hair extensions comprising the pressing member (9) and a vibrating member able to transmit vibrations with substantially ultrasonic frequency which can melt, by intermolecular friction, a thermoplastic substance constituting a fixing element.

15 21. Applicator (1) according to claim 20, wherein said second jaw (7) operates as vibrating member, being connected to said vibration-generating means (60) received inside the handle (2), in cooperation with the action of the pressing member (9).

20 22. Applicator (1) according to claim 1, wherein said pressing member (9) operates as mobile jaw member which translates with respect to the fixed jaw member (7) and with respect to a guide of the pressing member (9) connected to said handle.

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